

## The Knowledge Bank at The Ohio State University

### Ohio State Engineer

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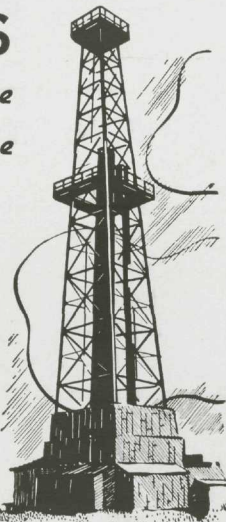
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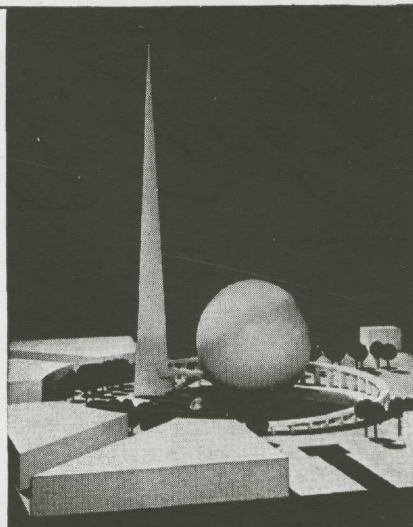
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# G-E Campus News



## NEW-TYPE STREAMLINER

**A** NEW-TYPE 125-mile-an-hour streamliner—the 5000 horsepower steam-electric train now being put through its final tests by G-E engineers—soon will be speeding on its first westward run over the Union Pacific's historic "Overland Route."

Nearly two years have been spent by General Electric and Union Pacific engineers in designing and building the streamliner. The result is that the power plant of the new train is capable of doing twice the work of a conventional steam locomotive for each pound of fuel used, and of making three times the mileage without stopping for fuel or water. Six large motors in each of the two cabs drive the locomotive, the electricity being supplied by a geared turbine-electric generating unit similar to those used on many ships.

As the new 15-car streamliner speeds between Chicago and the Pacific Coast, at times winding through passes more than 7000 feet above sea level, it will be another symbol of the constant search by General Electric's transportation engineers for more efficient means of travel. This search is one in which the engineer with years of experience gives invaluable training to the Test men—young student engineers recently graduated from college—who assist him.

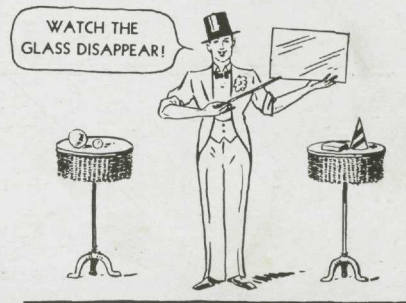


## TELEVISION AT THE NEW YORK WORLD'S FAIR

**I**F YOU have a favorite line or two from Kipling or a famous Shakespearean speech you like to give now and then, consider the *ne plus ultra* of settings for the presentation—a complete television studio, with an audience as

standard equipment, recently announced by Dr. W. R. G. Baker, Union '16, managing engineer of the General Electric radio division and an ex-Test man.

For you are invited to turn actor in the G-E building at "The World of Tomorrow," the New York World's Fair. At your service will be a program director, who will initiate you into the experience of acting before the camera, and complete television equipment of the latest design—receivers, camera, transmitter. And between acts you will be able to see and listen to programs that are being broadcast by television stations throughout the New York area. Demonstrating television to the public is not new to General Electric engineers. Nine years ago, Dr. E. F. W. Alexanderson—one of the G-E consulting engineers and an ex-Test man—and his assistants demonstrated television to a theater audience in Schenectady. But great advances have been made since then, and when you act for your friends at New York you will be using the latest equipment that science has to offer.



## NOW YOU SEE IT— NOW YOU DON'T

**I**N THE G-E Research Laboratory, at Schenectady, there is a framed photograph which at first glance does not appear to be unusual in any way. But when it is viewed from an angle at which the glare of light reflected from the glass becomes noticeable, the picture does tricks—part of it becomes almost obscured by the glare, yet the rest remains clearly visible.

The explanation is that each surface of the clear portions of the glass is coated with a transparent film—a film four millionths of an inch thick, or one-quarter wave length of light, and having the proper refractive index. These films, recently developed by G-E scientists, cause the light rays reflected from the film surfaces to counteract one another. The reflection of light from the glass is thereby prevented. Whereas the process is still in the laboratory stage, it is believed that it will soon be available for many optical uses.

# GENERAL ELECTRIC